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CASTLEMAINE FIELD NATURALISTS CLUB INC.
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# Talking Turtles

## By Lou Citroën

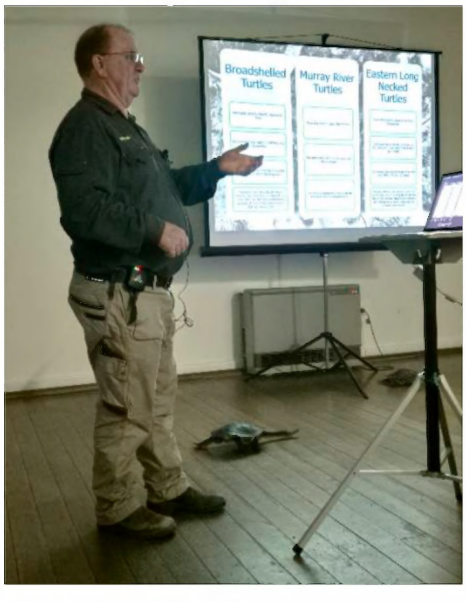
Broad-shelled Turtle

Eastern Snake-necked Turtle

Murray River Turtle

Australia's unique freshwater turtles are in crisis with their numbers in serious decline. How inspiring it was, then, to have resident passionate expert, President of Turtles Australia, Graham Stockfeld, as guest speaker at our May Monthly Meeting.

Graham gave us an excellent account of the three turtle species found in Victoria and explained the urgency of




Graham and friends

the need for their conservation. Excitingly, he brought with him some turtle friends, left to wander around the room for us to see 'up close and personal' and admire.

Whilst Graham made the distinction between the turtle (the amphibious one) and tortoise (the land-based one) he said that the main difference was that the turtle has adapted to aquatic life with webbed feet while the terrestrial tortoise had clubbed feet. In Australia we only have turtles, there are no tortoises.

Turtles and tortoises are reptiles of the order *Testudines*, which sets them apart, having developed a special shell evolved from ribs. The upper part is domed and called the *carapace*, whilst the flatter underside is referred to as the *plastron*. The outer surface is covered in scales of keratin called *scutes*; this is the same material of which horns, hair and claws or nail are constituted.

Turtles have been around for a very long time, surviving major extinction periods. The earliest known turtle, *Eunotosaurus africanus*, which had evolved with a complete carapace, lived in the Middle Triassic period (around 260 million years ago).

Graham pointed out that the length of the tail is a ready way of sexing turtles within a species, the male having the longer tail (*see photos right).*

Australia-wide, there are around 30 recognised species of freshwater turtles with more to be identified and classified Graham said.

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Sexing turtles: female tail (upper), male tail (lower) of Broadshells.

His presentation, though, focussed on the three species found in Victoria (*see photos top banner*).

- Two species of 'long-necked' turtle
  - Broad-shelled, also referred to as just *Broadshell* (*Chelodina expansa*); and
  - Eastern Snake-necked (*Chelodina longicollis*)
- One species of short-necked turtle
  - Murray River Turtle (*Emydura macquarii macquarii*)

*The Castlemaine Field Naturalists Club acknowledges the Dja Dja Wurrung community as the Traditional Owners and Custodians of the Country where we meet and study the natural environment. We pay our respects to their Elders, past, present and future.*

**The 'Long-necked' Turtles**

Of the long-necked turtles, the Broadshell is the larger with a carapace of up to 50 cm in length, while the Eastern Snake-necked Turtle's carapace is up to 26 cm. The Broadshell plastron is cream to pinkish without markings and proportionately narrow compared to that of the Eastern Snake-necked (*see photos below*).

Other distinguishing features between these Long-necks are that the Eastern Snake-necked turtle, has a comparatively small head, rough skin on the neck and limbs and that the length of the head and neck comprise up to 60% of the carapace length compared with the Broadshell where head and neck are ≥ 85% of carapace length. Its eyes are located more on the front of the head rather than on the top and close together as for the Broadshell. The Eastern Snake-neck is distinguishable also by black outlines across the plastron.

The plastron of the Broadshell (left) is cream to pinkish cream with no markings, and narrow compared to the Eastern Snake-necked Turtle (right).

Graham pointed out that the Eastern Snake-neck is notable for being able to produce a strong offensive odour.

There are two groups of Eastern Snake-necks, one found in the Murray-Darling basin and the other down the east coast to East Gippsland. They increase in size from the east towards South Australia.

The Broadshell is not often seen as it usually stays under water, with the female only coming out to lay eggs. In contrast, the Eastern Snake-neck is more vulnerable as it often comes out of water, especially after rain, roaming up to 2 km overland. They are often seen run over by cars on the road.

**The Murray River Turtle**

The Murray River Turtle (or Macquarie Turtle) is found in rivers, permanent lakes and billabongs throughout the Murray-Darling Basin.

There are populations in many other water bodies outside of their natural range, but these are descendants of escaped and released pet turtles and pose a threat to other races of these short-necked turtles through interbreeding.

It is an intermediate sized turtle, with a carapace of up to 34 cm in length. By contrast to the 'Long-necks', its head and neck comprise only about a quarter of the carapace length. Its head has the eyes on the side, a sharp beak, pointy nose and a yellow stripe down the side. Its plastron is narrow and light tan in colour.

**Diet**

The Long-necks are 'ambush' or 'sit-and-wait' predators and are carnivorous. Their diet largely consists of insects, fish, yabbies, freshwater prawns and animal carcasses.

Graham described the Short-necks as opportunistic omnivores: eating aquatic vegetation, algae, windfall fruits, driftwood as well as insects, fish and animal carcasses.

**Nesting and reproduction**

Family planning with the Broad-shelled can be a little haphazard. They usually nest in March to May, but occasionally in October and November. The hatchlings then don't emerge from the nest until about April the following year; but Graham said that there are records of nests having live hatchlings from over 500 to 700 days and many records of them emerging in October to November.

The female Broadshell digs a nest approximately 200 mm deep to accommodate between 20-25 eggs. To demonstrate this, Graham had on display three plaster casts of abandoned nests – in order of size, the Broadshell, the Murray River and the Eastern Snake-neck.

The Murray River Turtles, a little more consistently, usually nest in early November. The hatchlings normally emerge from the nest after about 80 days.

The Eastern Snake-necks normally nest in November and December, but much later in the summer is not unknown (Graham referred to a record of late January). The Long-neck hatchlings normally emerge after 100 to 150 days. There are many reports, he said, of Long-neck hatchlings being found in October/November, which must have remained over the previous winter.

Interestingly, Graham mentioned how after mating, the female is able to store sperm in her oviduct, fertilising her eggs at a later time as they pass through the reproductive tract.

Turtles carry a lot of water around which helps in turning the nesting site into a 'mud pie' to assist with nest digging and, when dry, create a solid lid to the egg chamber. The digging is generally done with the hind legs. Nests are usually built in a dam wall or stream bank but sometimes some distance away from water in a paddock.

**Threats and predation**

Although native predators include goannas, ravens and water birds such as Ibis, three serious threats to turtle populations are predation by invasive introduced pest species, habitat loss and aquatic invasive species.

Alarmingly, over 95% of turtle nests are lost to predators both native and introduced. Foxes have by far the greatest impact on turtle nests Graham said. He showed a drone image of a site containing 20 Broadshell Turtle nests. His team was able to protect only one nest while 18 of the remaining 19 nests were predated on, on the same day. Such is the devastation!

Habitat loss also constitutes a significant impact on turtles. As is the case with much of our wildlife, over the years, drying and clearing of wetlands is a very real and extensive problem.

Invasive turtle species, such as the introduced Red-eared Sliders are also a threat. Native to North America, they arrived in Australia, probably illegally, as part of the pet trade and are now established in small populations near Brisbane and Sydney. It is in the top 100 of the world's most invasive species. They out-breed native turtles, can lay 70 eggs per clutch and produce more than one clutch per season. They are also aggressive, driving native turtles out of their habitat.

Graham shares his enthusiasm for turtles with a young attendee at a community event.

**Making a difference for our turtles**

Graham described several strategies that are already underway and in which individuals can contribute significantly toward saving our turtles.

- Awareness-raising
  Turtles Australia is making a big impact on community awareness of these precious reptiles with presentations such as this to concerned community groups: e.g. Castlemaine Field Naturalists Club (and Castlemaine Landcare Group the previous night), school groups etc.
- Artificial islands
  Turtles Australia, through Graham's initiative and innovation, have had astonishing success in creating floating islands with submerged plants specifically designed as isolating refuges for turtles which, importantly, exclude the fox. Turtles have taken to them enthusiastically! These islands have enormous promise as they also provide for diversity in becoming a 'Mecca' for birds and Rakali.
- Barriers to predators
  Graham explained that mesh coverings over nest entrances have been trialled. Plastic mesh, small enough to keep especially foxes out, but allowing young to emerge have met with mixed success as some fox populations appear to have learnt that plastic can be chewed through! So experimental work is ongoing with metal mesh.
- TurtleSat Community program.
  The website *turtlesat.org.au* allows communities to map the location of freshwater turtles and nests in waterways and wetlands across the country.
- Land initiatives
  Graham described how some landholders have, at their own expense, taken the initiative to set up invaluable predator-proof fences around sensitive turtle areas to keep out especially the foxes.
- Volunteer group initiatives
  Graham urged concerned individuals to do as he has done, set up your own program or help with volunteer fieldwork mapping turtle sightings and protecting nest areas.
- Removing turtles off roads
  Be aware of the vulnerability of turtles trying to negotiate busy roads. Apart from removing them from harm's way, Graham advised to allow them to keep moving in the direction they are going.

We thanked Graham for shining a light on yet another example of endangered native Australian fauna, and the amazing work carried out by Turtles Australia. His fascinating presentation showed how awareness-raising, monitoring and effective and innovative mitigating actions can begin to turn around dire trends.

*Photos from "Turtles Australia" (except for first one, ed. JR)*

Artificial islands – turtles love them!

# Photographing for iNaturalist

## 10th May Excursion – leader Jill Williams

Our club is encouraging members to use the iNaturalist website for recording their observations of living organisms. You do not need to know the identity of an organism when you load it into iNaturalist. Observations loaded to iNaturalist have their identification confirmed by the iNaturalist community of users. Once identified, these observations contribute to other natural history databases such as the Atlas of Living Australia and become available to ecologists and researchers. These observations add to our knowledge of our local environment and help us protect it. Excitingly, sometimes the observation may be a species new to science or outside its known range. iNaturalist observations can also help show the distribution of invasive species and in some instances detect new invasive species not recorded previously in Australia.

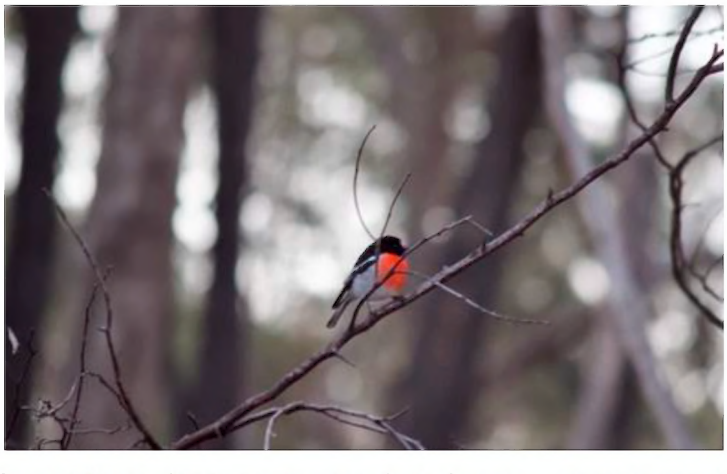
To this end, our May excursion was devoted to improving skills in photographing the features of a species which would lead to a confident identification in iNaturalist. It was a balmy autumn afternoon as 18 field naturalists gathered at the junction of the Red, White and Blue and Bells Tracks in Muckleford Forest.

Jill began with a short introduction showing some lighting accessories to aid in highlighting identifying details or revealing fungi hidden in dark wood hollows. Other aids included small mirrors to place under fungi caps to observe the presence of gills or pores. Notes prepared by Jill, Geraldine Harris and Chris Timewell were provided describing those features of plants, insects, fungi and birds to capture and also including the important topic of the ethics of bird photography. These notes are available on our website page for recording observations together with information about using iNaturalist.

Jill giving an introduction to participants before they dispersed into groups.

The participants then divided into groups and went off in different directions to explore and apply these points. Although the effects of the dry conditions since before last summer were evident, there were still plenty of subjects for all to practice on. Peter Turner and group went looking for butterflies. Geraldine Harris led a group to concentrate on plants. She had many tips for identification, for example the position of small glands on the leaf stems or phyllodes of wattles or the shape of the cross-section through the stem of a rush. Kerrie Jennings and followers were on the lookout for birds, the near-by dam providing a refuge for several species. Euan Moore and others went hunting for insects and sundry. It took a keen eye to spot the few insects, but there were quite a few remnants of pupal cases tucked in the bark of trees especially the ironbarks. A Common Eastern Froglet was heard down in a grassy hollow reminding us that sound recordings can also be added to iNaturalist.

As frequently occurs, at the end of the session while enjoying a cup of tea the final total of species observed and recorded was quite significant. Participants are encouraged to upload their observations into iNaturalist. Already on iNaturalist there are a number of observations from the day which you can see here. An interesting collection from a very enjoyable and valuable afternoon.



Scarlet Robin (*Petroica boodang*). Left male – photo Kerrie Jennings, Right female – photo Euan Moore.
NB Geoff Park recently posted about the apparent decline of some of the common small woodland birds including the Scarlet Robin.

Early/Spreading Wattle (*Acacia genistifolia)*. Photo: Jenny Rolland

Golden Wattle (*Acacia pycnantha).* Photo: Jenny Rolland

Rough Wattle (*Acacia aspera)* Photo: Jenny Rolland

Case Moths (Genus *Clania).* Photo: Euan Moore.

Bagworms, Clothes Moths and Allies. (Superfamily *Tineoidea*) Photo: Jenny Rolland

Australian Bluebell (*Wahlenbergia gracilis)* Photo: Cathrine Harboe-Ree

Mountain Grevillea (*Grevillea alpina).* Photo: Kerrie Jennings

Inch Ant (*Myrmecia pyriformis)*
Photo: Lou Citroën

Conehead Termites *(*Genus *Nasutitermes*)
Photo: Euan Moore

White Punk *(Laetiporus portentosus)*
Photo: Cathrine Harboe-Ree

Deceivers. (Genus *Laccaria)*
Photo: Gerry Ho

Entelegyne Spiders (Infraorder *Entelegynae*). Photo: Jenny Rolland

Little Marbled Scorpion *(Lychas marmoreus)*
Photo: Euan Moore

All observations can be viewed at this link:-
https://inaturalist.ala.org.au/observations?lat=-37.05949428053182&lng=144.10735114113996&on=2025-05-10&radius=0.21098389472567963

| Bird List from Excursion | |
|---|---|
| Australasian Grebe | *Tachybaptus novaehollandiae* |
| Brown Thornbill | *Acanthiza pusilla* |
| Buff-rumped Thornbill | *Acanthiza reguloides* |
| Red Wattlebird | *Anthochaera carunculata* |
| Scarlet Robin | *Petroica boodang* |
| Superb Fairywren | *Malurus cyaneus* |
| Weebill | *Smicrornis brevirostris* |
| White-eared Honeyeater | *Nesoptilotis leucotis* |
| White-faced Heron | *Egretta novaehollandiae* |
| White-plumed Honeyeater | *Ptilotula penicillata* |
| White-throated Treecreeper | *Cormobates leucophaea* |

# Report on the Railway Track controlled burn conducted in the Maldon Historic Reserve 9-11 May 2025.

## From Friends of Maldon Historic Reserve Group

Various local environmental groups including Friends of Maldon Historic Reserve; Maldon Urban Landcare Group; Muckleford Landcare; Muckleford Forest Friends; Friends of the Box-Ironbark Forest and Castlemaine Field Naturalists have been consulting with Fire Forestry Management (FFM) staff since 2022 in regard to the planned burn near the Railway Track in the Maldon Historic Reserve. This included onsite meetings and email updates since then. The burn was originally planned to take place in Autumn 2023 but was postponed due to weather conditions not being suitable for a low-intensity burn.

Concerns were raised about how the fire might impact flora and fauna in the burn and surrounding areas. Several patches of the Small-flowered grevillea, *Grevillea micrantha* (right) rare in our district, plus various other wildflowers including orchids were within the designated area to be burned. FFM were willing to listen and, after walking these areas with staff, it was agreed that areas where these rare species were growing would be excluded from the planned burn area.

Two members of the Friends of Maldon Historic Reserve met the Operations Manager for FFM, on Monday 5th May for a pre-burn meeting. He explained the procedures that would be followed when the burn is ignited and invited us to drive the site with him once the burn was going.

The burn was ignited on Friday 9 May and we accompanied the manager on the next day to view progress. He explained that the fire is a low-intensity burn to remove 4cm of potential fuel and prevent future elevated bushfire hazards. A pre-burn fire was lit to create smoke so that animals could get away. He advised that staff had relocated several lizards following the pre-burn.

There were 35 FFM staff both lighting and patrolling the site. The area burned is approx. 110 hectares divided up into blocks. Melbourne University staff/students had placed temperature probes around the site to measure heat levels. The weather conditions over the period of the burn and subsequently were ideal i.e. clear skies, little wind and correct moisture levels.

From what we heard and observed first hand, this seemed like a well planned and executed controlled burn. It was conducted over three days and completed on the afternoon of Sunday 11 May and is now being patrolled.

The Operations Manager has invited us to accompany him to check the outcome in around 8 weeks' time.

NB. *Grevillea micrantha* is listed as Critically Endangered under the FFG Act.

# Roadside Cleanup May 2025

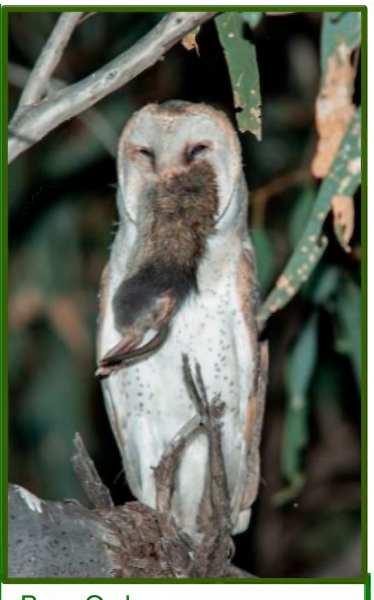
## Geoff Harris

Our second Roadside Cleanup for 2025 was held on Monday 12 May. On a beautiful sunny autumn day we collected about 330 litres of rubbish plus a tyre and a few golf balls. We also collected about 60 refundable containers but the refund machine would only accept 36 of them enabling us to donate $3.60 to YIMBY compost makers and keeping about 20 litres of plastic out of landfill. Thanks to Linda, Sue, Peter, Nigel H, Brian & Cathrine.

## Rat poisons are killing our native wildlife!

Slow acting, lethal second-generation rodenticides (SGARs) kill not only rats and mice, but anything that eats them. Sadly, this includes owls, other wildlife and pets. In conjunction with Birdlife Australia, we are running a campaign to ask businesses not to stock SGARs and individuals not to buy or use them. There is more information about SGARs and their alternatives on the CFNC website (see our letter to stockists) and on the Birdlife Australia website (see The Evidence Against SGARs — Act for Birds).

You can help by using this information yourself and spreading the word. By checking the labels before buying rat poisons you can opt for a more wildlife-friendly rodenticide. There are also several other ways to control rodents, including a range of traps.



Barn Owl.
Photo: Euan Moore

## From the Committee

It is a busy time of the year behind the scenes. We continue to monitor official burns and have met with the local Forest Fire Management team to discuss our environmental concerns. We are keen to pursue opportunities to undertake periodic surveys to assess the impact of burns.

Also on the lobbying front, in collaboration with Birdlife Australia we are campaigning against toxic rat poisons.

As part of our commitment to encourage engagement with nature, two new brochures are underway, one is a walk in Castlemaine looking at Australian street trees and the other a full-colour brochure on the butterflies of our region.

Looking further ahead, planning has started for our hosting of SEANA in spring 2026, and this will gear up in the middle of the year. In the meantime, we hope for rain!

# SEANA in Castlemaine – 9-11 October 2026

Our club will be 50 years old in 2026. As one way to celebrate this milestone, we will host the Spring 2026 gathering of field naturalists from across south-eastern Australia from afternoon of Friday 9th to Monday morning 12th October 2026. The last time CFNC hosted a SEANA (South East Australia Naturalists Association) camp was in October 2019, with over 100 attendees. We will be based again at Campbells Creek Community Centre, which has been booked for the weekend. The program will include guest speakers after the evening meals on Friday and Saturday, and excursions on Saturday and Sunday.

While October 2026 seems a long way off, planning will start after an organising committee is formed in July. Tasks for this committee include coordination of the activities at the Community Centre, finances, arranging a caterer, accommodation information for people attending, and the program of talks and excursions. Working groups may be needed to spread the load for some of these areas.

Some members of the CFNC Committee will be on the organising committee, but we are seeking help from you, our members. Please consider joining the organising committee, or offering to lead one of the excursions. If you are able to help please contact Peter Turner (email: munrodsl@iinet.net.au, Phone: 0439 369 709)

Peter Turner (Convenor, SEANA 2026) Euan Moore (President)

# Coming Events in June

## Monthly Meeting: Friday 13th June, 7.30pm by Zoom

**"How light pollution impacts wildlife"**

**Speaker: Kelly Clitheroe, President of DarkSky Victoria**

The June meeting will be the first of our 3 winter meetings by Zoom for 2025.

Kelly will be talking about the need to retain the quality of the night sky for future generations. She will focus on the impact of light pollution on fauna and flora and the work DarkSky Victoria is doing to draw attention to this issue, including practical suggestions for preventing or minimising light pollution.

**How to join the Zoom meeting** – you need to **register in advance** to receive the link for joining the Zoom session. To register, please click on the following link or copy this url into your browser:

https://us06web.zoom.us/meeting/register/YYBa0F5NRCSv23G5rYl2lw

We recommend joining the session 5 – 10 minutes before the meeting to avoid congestion at 7.30pm.

**Observations:** All members and visitors are invited to share their interesting observations at the meeting. Please email any photos to illustrate your report as uncropped JPEG file(s) to Jill Williams (jilliwill33@gmail.com) by noon on the day of the meeting.

## Excursion: Saturday 14th June, 1.30pm

**"Street trees of Castlemaine – part 2, and Forest Creek revitalisation project", Greenhill Ave.**

**Leaders:** Sue Luke, Cathrine Harboe-Ree, Jon Leevers

In July 2024, arborist Sue Luke together with Rosemary Turner led a Castlemaine street trees walk taking in Kennedy Street and Goldsmith Crescent. Sue will lead a second walk along Greenhill Avenue, from Greenhill Place to the Pyrenees Highway, looking at over thirty Australian tree and shrub species. In addition, the Forest Creek Revitalisation Project along this stretch of the creek is well underway, and Jon Leevers, from the Castlemaine Landcare Group, will talk to us about the project's aims and progress. The excursion will start and end in Greenhill Place, which is on the southern side of the creek, across the white wooden Ten Foot Bridge from the Octopus. The excursion will start at 1.40pm and finish with afternoon tea beside the creek in Greenhill Place. There is parking in the vicinity.

**Meet:** for car-pooling and **1.30pm** departure at the northern end of the Car Park north of the Railway Goods Shed, Kennedy St. Castlemaine. **Or meet at 1.40pm** at Greenhill Place near the Peppercorn trees.

Google maps reference: https://maps.app.goo.gl/NxiiwRwkbNqy8zYK8

**Bring:** water, **clean** sturdy shoes, chairs, afternoon tea.

Photos by Kerrie Jennings of 2 common Lichen species in the Muckleford Forest.
Left – Genus *Heterodea* (sprinkled with water).
Right – Coral Lichen (*Pulchrocladia retipora*)

# Program

Monthly meetings will be held on-line via Zoom again during the winter months (June, July and August) commencing at 7.30pm. Please register in advance (see "Coming Events" page) to receive the link for joining the meeting.

All members and visitors are invited to share their interesting observations at these meetings. Please email any photos to illustrate your report as uncropped JPEG file(s) to Jill Williams (jilliwill33@gmail.com) by noon on the day of the meeting.

Excursions are held on the Saturday following the monthly meeting and leave from the northern end of the car park north of the Railway Goods Shed, Kennedy St. at 1.30pm unless stated otherwise.

See "Coming Events" page for more details about June events.

Fri 13th June, 7.30pm
Meeting (Zoom) **"How light pollution impacts wildlife"**
Speaker: Kelly Clitheroe (President, DarkSky Victoria)

Sat 14th June , 1.30pm
Excursion: **"Street trees of Castlemaine – part 2, and Forest Creek revitalisation project". Greenhill Ave**.
Leaders: Sue Luke, Cathrine Harboe-Ree, Jon Leevers

Fri 11th July, 7.30pm
Meeting (Zoom): **"Protecting and restoring our grassy plains"**
Speaker: Adrian Marshall (VNPA, Grassy Plains Network facilitator)

Sat 12th July, 1.30pm
Excursion: **"Fungi search"**
Leader: Joy Clusker

See our website calendar of events for further dates and activities:
Calendar of Events – Castlemaine Field Naturalists Club

**Visitors are welcome at club activities**

**Membership renewal reminder**
Members are reminded that membership renewals are now overdue.
This June issue of the Newsletter will be the last for non-renewals.

# Castlemaine Field Naturalists Club Inc. #A0003010B

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**Membership** – fees due 1st April
Includes the monthly newsletter, Castlemaine Naturalist.
(Membership forms on CFNC website)
Single $35, Family $50
Pensioner or student:
Single $25, Family $30

**Newsletter: Castlemaine Naturalist**
Email items:
newsletter.cfnc@gmail.com
July edition deadline: **27th June**

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Treasurer: Geoff Harris

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Kerrie Jennings Jill Williams
Jenny Rolland Noel Young

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Program Coordinator:
Jenny Rolland

Newsletter Distributor:
Geraldine Harris

*The Nodding Greenhood Pterostylis nutans is the club emblem. Design by Rita Mills*

**Disclaimer:** The opinions expressed in this newsletter are those of the contributors and not necessarily those of the club.